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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/105,844	06/26/1998	USHA UPADHYAYULA	INTL-0055(P5)	6060

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EXAMINER

ALAUBAIDI, HAYTHIM J

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/105,844

Applicant(s)

UPADHYAYULA ET AL.

Examiner

Haythim J. Alaubaidi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-49 and 57-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-45, 49 and 57-74 is/are rejected.
- 7) ☒ Claim(s) 46-48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This communication is a Non-Final Office Action in response to the amendment filed on April 05, 2005.
2. The Examiner acknowledges the new added claims 69-74.
3. Claims 43-49 and 57-74 are currently presented for examination following the April 05, 2005 amendment.
4. The Examiner acknowledges the previously cancelled Claims 50-56.
5. Claims 43, 57 and 61 are independent claims.
6. Claims 43 and 68, is rejected under 35 U.S.C. 112, first paragraph.
7. Claims 43-45, 49, 57-60 and 73-74, are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Starkweather and further in view of Ishii.
8. Claims 61-66 and 68-72, are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Starkweather.
9. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Starkweather and further in view of Ishii.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 43 and 68, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "conditions of image capture" in Claim 43; and the limitation "condition of the image device" was not described in the Specification. The Examiner is refereeing to the lighting conditions on Page 6, Lines 1-20 of the current Application Specification. In Claim 68, the Applicant, in replacing the limitation "condition of the image device" instead of "condition of an image sensor", did not change the limitation to satisfied the 35 U.S.C. 112 rejection. The Examiner respectfully would like to bring the Applicant's attention to the content of the Specification of Page 6, Lines 1-20, wherein the indication of conditions are being referred to the lighting conditions of the environment surrounding the image at the time of the image being captured; yet reading the limitation of "condition of the image device" seems like the condition of the device, sensor or the camera is the one that is effecting the capture. Appropriate correction is requested.

Response to Arguments

12. Applicant's arguments in the amendment filed on April 05, 2005 have been fully considered but they are not persuasive.

a. Applicant argues on Page 6, paragraph 2 that Inoue fails to teach "forming an image file including a graphical object and a device profile". The Examiner however

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disagrees. It is clear from the citations indicated by the Examiner in the previous Office Action dated February 09, 2005 that these information (graphical object and a device profile) information are being stored in the camera and specifically in the memory of the camera, please see (Col 4, Lines 11-19) specifically Lines 15-19, i.e.

At the same time, the digital camera 1 stores the input states of the individual images (image data) held in the image memory 5 and ***parameters of color processing*** (device profile)¹ and the like executed in the digital camera in an image additional information memory 6 as image additional information 11. Such information is stored in a RAM or a nonvolatile RAM, or a magnetic storage medium or magnetooptical recording medium.

The Applicant also argues that the information are being stored in two different areas of the memory of the camera and cited (Inoue Col 4, Lines 11-19, i.e. memory 4, memory 5 and memory 6). The Examiner respectfully would like to direct the Applicant's attention to the same cited paragraph above, specifically lines 15-19 (last three lines of the cited paragraph above) wherein these information are being stored on RAM or magnetic storage medium, ...etc.

b. Applicant argues on Page 6, paragraph 3 that Starkweather fails to teach "developing a device profile based at least on the conditions of image capture". The Examiner however disagrees. The combination of both Inoue and Starkweather does teach the argued limitation.

¹ The Examiner would like to note that the "parameters of color processing" can also be interpreted to be like the device profile, considering Applicant's Specification of the current Application (please see Page 1, Lines 13-16).

Inoue reference discloses condition of image capture (lighting condition)², Col 5, Lines 18-20, i.e. "*color processing parameter 13-15 in the camera, as image sensing conditions*"; also see Inoue, Col 20, Lines 50-61 and Col 21, Lines 23-25; also

Inoue teaches "device profile" as in "information unique to the digital camera", please see (Abstract; see also Figure 1, Element No. 4 and corresponding text; see also Col 4, Lines 6-11. However, Inoue does not explicitly indicate the step of developing a device profile; nor does the reference disclose the dynamic generation of the profile.

However, Starkweather teaches developing a device profile (Col 2, Lines 16-65) specifically Lines 16-28 and also based on light conditions, (Col 2, Lines 52-55, i.e. light source).

c. Applicant argues on Page 6, Paragraph 4, that no motivation can be found to combine Inoue with Starkweather. The Examiner however disagrees. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the general knowledge available to an ordinary skilled in the art is the ability to develop and modify a plurality of device profiles

² Please note that the Examiner is interpreting the "conditions of the image capture" as the lighting condition; according to the Specification of Page 6, Lines 1-20, wherein the indication of conditions are

(not just for one device), such as in Strakweather, (Figure No. 1, Element No. 17 and 19) and in Col 2, Lines 38-42, i.e. the output device is a color printer; see also Col 2, Lines 59-65, i.e. the output device is a display monitor; see also Col 7, Lines 34-42.

d. Applicant argues on Page 6, paragraph 5 that the combination of Inoue, Starkweather and Ishii fails to teach "dynamically generating a profile". The Examiner however disagrees. Ishii teaches "dynamically generating a profile" (Ishii, Abstract, i.e. dynamic image data; see also Col 1, Lines 11-16, i.e. an image recording device and method capable of optimum conversion processing of dynamic picture image data from an input device having variable characteristics, and to a computer-readable memory; see also Col 2, Lines 13-16, i.e. carrying out color management processing in the recording of dynamic image data to a medium; see also Col 3, Lines 38-40, i.e. As an example of color space characteristic data may be adduced profile data representing a conversion characteristic to a different color space); see also (Ishii, Col 1, Lines 18-36, i.e. video camera; see also automatically; see also Col 4, Lines 6-18).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

being referred to the lighting conditions of the environment surrounding the image at the time of the image being captured and not the condition of the actual device or sensor.

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 43-45, 49, 57-60 and 73-74, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirowo Inoue (U.S. Patent No. 6,273,535 and Inoue hereinafter) in view of Gary Starkweather (U.S. Patent No. 5,694,227 and Starkweather hereinafter) and further in view of Yoshiki Ishii (U.S. Patent No. 6,477,318 and Ishii hereinafter).

Regarding Claims 43, 49 and 57-58, Inoue discloses:

capturing an image in a digital imaging device (Inoue, Figure 1; see also Col 3, Lines 67 through Col 4, Line 1) to form a graphical object (Inoue, Col 2, Lines 5-18, i.e. image forming);

condition of image capture (lighting condition)³, please see (Inoue, Col 20, Lines 50-61 and Col 21, Lines 23-25);

forming an image file including the graphical object and said device profile (Col 4, Lines 6-11), i.e.

The digital camera 1 **stores** (associate)⁴ **input-device-unique information unique to the device** (device profile) in a status memory 4. Also, the digital camera 1 photoelectrically converts an image into an electrical signal using a CCD and the like, **and holds a plurality of images as digital image data in an image memory 5** (image data, also the same as graphical object).

³ Please note that the Examiner is interpreting the "conditions of the image capture" as the lighting condition; according to the Specification of Page 6, Lines 1-20, wherein the indication of conditions are being referred to the lighting conditions of the environment surrounding the image at the time of the image being captured and not the condition of the actual device or sensor.

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see also (Col 4, Lines 11-19), i.e.

At the same time, the digital camera 1 stores the input states of the individual images (image data) held in the image memory 5 and ***parameters of color processing*** (device profile)⁵ and the like executed in the digital camera in an image additional information memory 6 as image additional information 11. Such information is stored in a RAM or a nonvolatile RAM, or a magnetic storage medium or magnetooptical recording medium.

transferring said graphical object and associated device profile from said imaging device (Inoue, Col 4, Lines 35-40).

Inoue reference discloses all of the claimed subject matter set forth above, including condition of image capture (lighting condition)⁶, Col 5, Lines 18-20, i.e. "*color processing parameter 13-15 in the camera, as image sensing conditions*"; also see Inoue, Col 20, Lines 50-61 and Col 21, Lines 23-25; also

Inoue teaches "device profile" as in "information unique to the digital camera", please see (Abstract; see also Figure 1, Element No. 4 and corresponding text; see also Col 4, Lines 6-11. However, Inoue does not explicitly indicate the step of developing a device profile; nor does the reference disclose the dynamic generation of the profile.

⁴ The Examiner is interpreting the "stores" feature in the Inoue reference as "associating" according to the Specification of the current Application (please see Disclosure, Page 4, Line 28).

⁵ The Examiner would like to note that the "parameters of color processing" can also be interpreted to be like the device profile, considering Applicant's Specification of the current Application (please see Page 1, Lines 13-16).

⁶ Please note that the Examiner is interpreting the "conditions of the image capture" as the lighting condition; according to the Specification of Page 6, Lines 1-20, wherein the indication of conditions are being referred to the lighting conditions of the environment surrounding the image at the time of the image being captured and not the condition of the actual device or sensor.

However, Starkweather teaches developing a device profile (Col 2, Lines 16-65) specifically Lines 16-28 and also based on light conditions, (Col 2, Lines 52-55, i.e. light source).

Given the intended broad application of Inoue system, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Inoue with the teachings of Starkweather to add the developing step of a device profile based at least on the conditions of image capture (lighting condition). As in Inoue, wherein the device profile is being used for the forming of an image, but not actually being developed. Starkweather, on the other hand is actually developing the device profile taking into consideration lighting conditions (condition of image capture) as in the light source (Col 2, Lines 52-55). Hence one ordinary skill in the art would be motivated to combine the references in order to increase the flexibility of a device by maximizing the usage and increasing the compatibility of the device with other systems, such as other output devices; also by allowing the Image device to not only use the available device profile, but instead, be developing them too.

The combination of both Inoue and Starkweather discloses all of the claimed subject matter set forth above, except it does not explicitly indicate the step of dynamically generating a profile. However Ishii discloses dynamically generating a profile (Abstract, i.e. dynamic image data; see also Col 1, Lines 11-16, i.e. an image recording device and method capable of optimum conversion processing of dynamic picture image data from an input device having variable characteristics, and to a

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computer-readable memory; see also Col 2, Lines 13-16, i.e. carrying out color management processing in the recording of dynamic image data to a medium; see also Col 3, Lines 38-40, i.e. As an example of color space characteristic data may be adduced profile data representing a conversion characteristic to a different color space).

Given the intended broad application of the combination of both Inoue and Starkweather, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of both Inoue and Starkweather with the teachings of Ishii to dynamically generate a device profile especially when using an input device that can generate dynamic image data such as a "video camera" (Ishii, Col 1, Lines 18-36, i.e. video camera; see also automatically; see also Col 4, Lines 6-18); one good reason would be to continuously (dynamically) view an output of the inputted image data on an output device such as, a display screen; also due to the high portability of video cameras the conditions of the image capture, such as the lighting conditions, i.e. indoor or outdoor that may change rapidly and to view the output of this video camera with a continuous clear display

Regarding Claims 44 and 59, Ishii discloses:

storing portion of the associated profile information in a profile file (Col 8, Lines 4-24);

associating a file name with the profile (Figure 7 and corresponding text); and communicating the filename to the CMS (Col 8, Lines 4-24).

Regarding Claims 45 and 60, Starkweather discloses storing a value representative of a color relation between an input color space and a profile color space (Col 7, Lines 38-42).

Regarding Claim 73, Starkweather discloses illuminant tag value (Col 7, Lines 22-57; specifically Lines 2-31; see also Col 6, Lines 11-18).

Regarding Claim 74, Inoue discloses an application program interface (Inoue, Figure No. 15, i.e. Application Layer).

15. Claims 61-66 and 68-72, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirowo Inoue (U.S. Patent No. 6,273,535 and Inoue hereinafter) in view of Gary Starkweather (U.S. Patent No. 5,694,227 and Starkweather hereinafter).

Regarding Claims 61-63 and 71-72, Inoue discloses:
receiving a file having image data and device profile information from an imaging device (Col 4, Lines 6-11), i.e.

The digital camera 1 **stores** (associate)⁷ **input-device-unique information unique to the device** (device profile) in a status memory 4. Also, the digital camera 1 photoelectrically converts an image into an electrical signal using a CCD and the like, **and holds a plurality of images as digital image**

⁷ The Examiner is interpreting the "stores" feature in the Inoue reference as "associating" according to the Specification of the current Application (please see Disclosure, Page 4, Line 28).

data in an image memory 5 (image data, also the same as graphical object).

see also (Col 4, Lines 11-19), i.e.

At the same time, the digital camera 1 stores the input states of the individual images (image data) held in the image memory 5 and ***parameters of color processing*** (device profile)⁸ and the like executed in the digital camera in an image additional information memory 6 as image additional information 11. Such information is stored in a RAM or a nonvolatile RAM, or a magnetic storage medium or magnetooptical recording medium.

Inoue reference discloses all of the claimed subject matter set forth above, except it does not explicitly indicate the step of comparing at least a portion of the device profile information to at least a portion of prior received device profile information.

However Starkweather discloses comparing at least a portion of the device profile information to at least a portion of prior received device profile information (Starkweather, Col 2, 36-42 and Lines 59-65) i.e. *The output device includes an output device profile that is updated in response to the modified device profile.*

Given the intended broad application of Inoue system, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Inoue with the teachings of Starkweather to compare a new device profile to the previous device profile in order to replace the previous device

⁸ The Examiner would like to note that the "parameters of color processing" can also be interpreted to be like the device profile, considering Applicant's Specification of the current Application (please see Page 1, Lines 13-16).

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profile when the surrounding lighting conditions has been changed and also to produce a better image reproduction that is as close as it is possible to the original image.

Regarding Claim 64, Starkweather discloses illuminant tag value (Starkweather, Col 2, Lines 52-55; se also Col 3, Lines 18-22).

Regarding Claim 65, Starkweather discloses media white (Col 3, Lines 9-17).

Regarding Claim 66, Inoue, discloses viewing conditions (Col 8, Lines 22-29, i.e. monochrome character mode, contrast).

Regarding Claim 68, Starkweather discloses wherein the device profile information relates to a condition of an image during capture of an image (Col 2, Lines 19-42).

Regarding Claims 69 and 70, Starkweather discloses comparing device profiles (Starkweather, Col 2, 36-42 and Lines 59-65).

16. Claims 67, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirowo Inoue (U.S. Patent No. 6,273,535 and Inoue hereinafter) in view of Gary Starkweather (U.S. Patent No. 5,694,227 and Starkweather hereinafter) and further in view of Yoshiki Ishii (U.S. Patent No. 6,477,318 and Ishii hereinafter).

Regarding Claim 67, the combination of both Inoue and Starkweather discloses all the claim limitations of the independent claim, except that nor Inoue or Starkweather explicitly indicate the method steps of:

- if the comparison is indicative of no match between the device profile information and the prior received device profile information, generating a profile based on the device profile;
- identifying the profile to the color management system (CMS); and
- storing the generated profile.

However, Ishii teaches:

- if the comparison is indicative of no match between the device profile information and the prior received device profile information, generating a profile based on the device profile (Col 8, Lines 10-24);
- identifying the profile to the color management system (CMS) (Ishii, Figure 17, and corresponding text, i.e. Elements No. 214 and 215); and
- storing the generated profile (Ishii, Figure No. 1, Element No. 107 and corresponding text; see also Col 8, Lines 4-10).

Given the intended broad application of both Inoue's system and Starkweather, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of both Inoue and Starkweather with the teachings of Ishii by indicating in what situation the update to the device profile is occurring (if no

match found), as Starkweather only indicates an update to the device profile; one reason would be dynamically (real time) generate new device profiles when new lighting conditions appears (changes in the color) (Ishii, Col 8, Lines 21-24).

Allowable Subject Matter

17. Claims 46-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form that would overcome the 112 rejection and that will include all of the limitations of the base claim and any intervening claims.

18. The following is the Examiner's statement of reasons for the indication of allowable subject matter:

Regarding Claim 46, Applicant's particular system and associated methods for dynamically generating device profiles is wherein storing a portion of the device profile comprises storing a value representative of a color relation between an input color space and a profile color space; and wherein the stored value comprises an illuminant tag value in combination with the other limitations of the claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record or that encountered in searching of the prior art, the prior art fails to anticipate or render Applicant's limitations above obvious.

The dependent Claims 47 and 48 being further limiting to dependent Claim 46 definite and enabled by the Specification would also be allowed if their respective

dependent Claims 46 was rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art Made of Record

19. a. Kumada (U.S. Patent No. 6337922) discloses an image process method, image process apparatus and storage medium;
- b. McLaughlin et al. (U.S. Patent No. 5739809) discloses a method and apparatus for display calibration and control; and
- c. Edgar et al. (U.S. Patent No. 5298993) discloses a display calibration.

Points of Contact

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haythim J. Alaubaidi whose telephone number is (571) 272-4014. The examiner can normally be reached on Monday - Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (571) 272-4023.

Any response to this office action should be mailed to:


The Commissioner of Patents and Trademarks, Washington, D.C. 20231 or telefax at our fax number (703) 872-9306.

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Hand-delivered responses should be brought to the Customer Service Window of the
Randolph Building at 401 Dulany Street, Alexandria, VA 22314

Haythim J. Alaubaidi

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PRIMARY EXAMINER